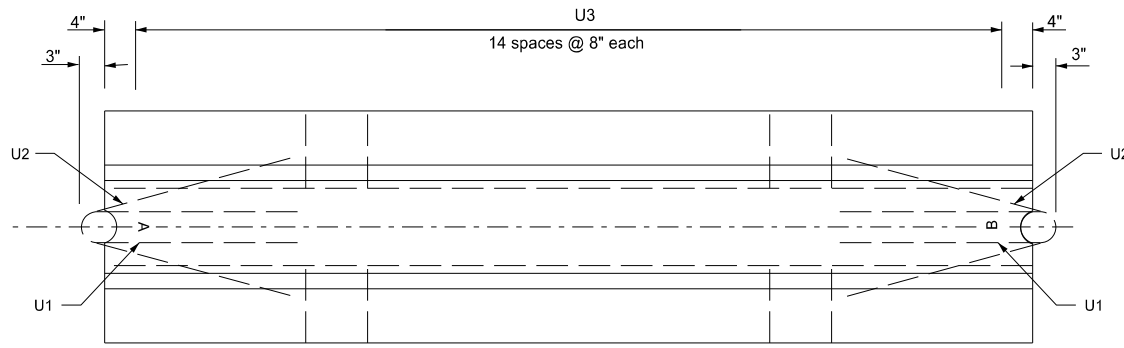
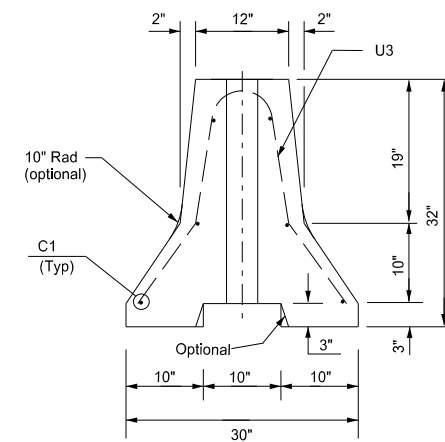


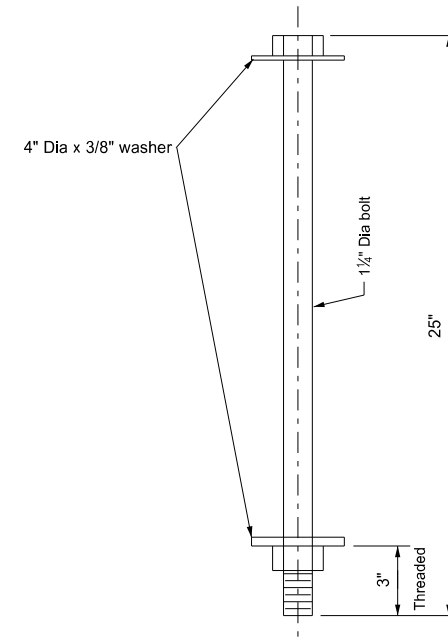
PORTABLE PRECAST CONCRETE MEDIAN BARRIER
(TEMPORARY USAGE)



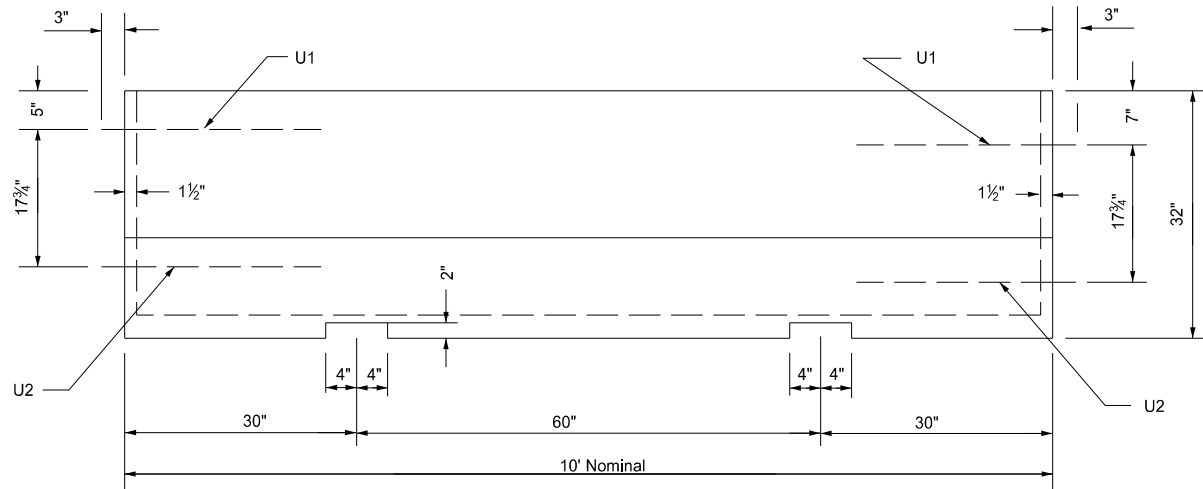
Plan View



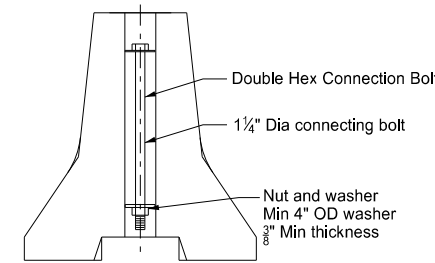
End View



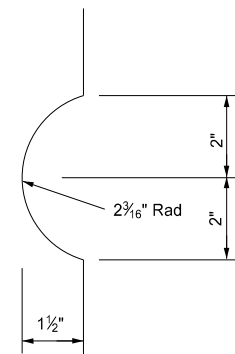
Connecting Bolt Detail
(One per 10 Ft section)



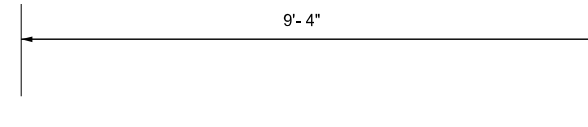
Side View



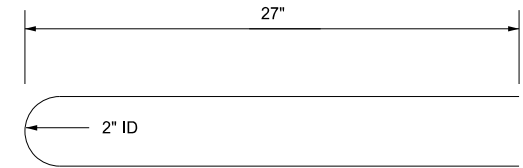
Bolt Connection Detail



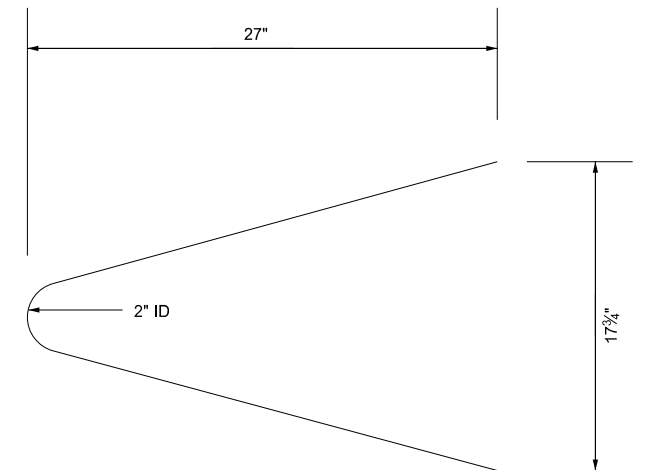
Dap Detail



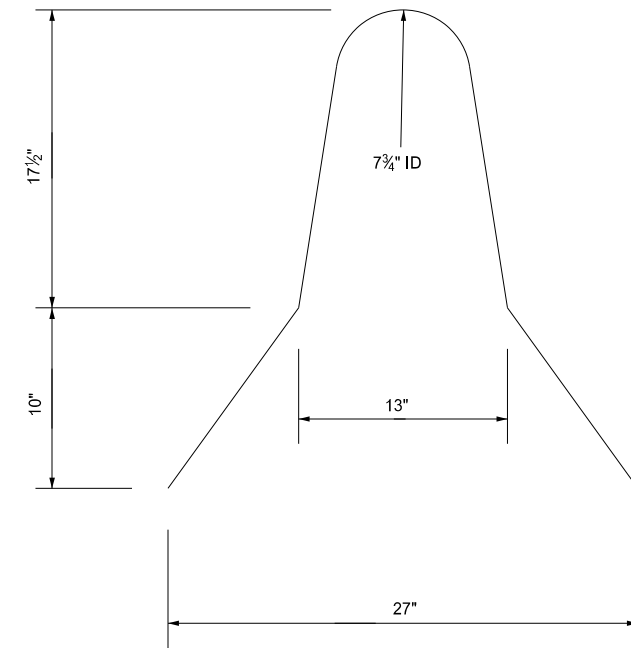
C1 Bar Detail



U1 Bar Detail



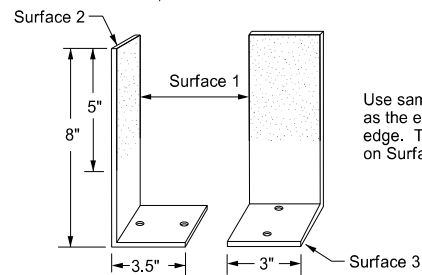
U2 Bar Detail



U3 Bar Detail

Notes:

- Galvanize all exposed hardware as per ASTM A153, except for the loop inserts.
- Use AAE-3 Concrete.
- Provide steel in accordance with Section 612 of NDDOT Standard Specifications.
- Imprint barrier ends A and B as shown with 4 inch letters. Field match A end with B end.
- Place barrier markers at the center of the barrier at 20' centers.
- Connect barrier sections with 1 1/4" Dia A-307 double hex connecting bolt. Maintain bottom nut and washer connection for duration of barrier installation.
- Place barrier to minimize openings between individual sections.



Barrier Marker Detail

Use same color reflective faces as the edge line along barrier edge. Two way reflective on Surface 1 & 2.

Reflective Tape
Use retroreflective, acrylic microprism material with acrylic backing, 3" wide, providing the following minimum optical performance with an observation angle of 0.1° measured in candlepower for the reflector:

Entrance Angle	Specific Intensity
Yellow - 4"	136
White - 4"	200

Adhesive
Use factory applied solid butyl rubber 1/8" thick, 2" wide on 2 1/4" wide release paper on surface 3 to temporarily mount markers to portable concrete barrier.

Bar List				
Mark	Size	No.	Length	Shape
C1	4	6	9'- 4"	Straight
U1	4	2	4'- 8"	Bent
U2	4	2	4'- 10 1/4"	Bent
U3	4	15	5'- 4"	Bent

Marker Body
Use high impact, weatherable engineering thermo-plastic material conforming to the following:

Property	Result	ASTM Test Method
Thickness (min)	.090"	—
Tensile strength (min psi) @ yield	5,500	D638
Impact strength @ -20°F (ft-lbs/in of notch)	3.2	D256 Method A
Impact strength @ 73°F (ft-lbs/in of notch)	14.0	D256 Method A
Flexural strength, PSI 1/4" @ 73°F	8,000	D790
Flexural modulus, PSI 1/4" @ 73°F	300,000	D790
Elongation @ yield	30%	D638

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
07-20-12	
REVISIONS	
DATE	CHANGE
9-27-17 11-01-19	Updated to active voice New Design Engr PE Stamp

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